# Operating Instructions and Parts Manual
# Drill Press
**Model: JDP-20MF**




**WALTER MEIER (Manufacturing) Inc.**

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**Part No. M-354170**
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# Warranty and Service

Walter Meier (Manufacturing) Inc., warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Service Centers located throughout the United States can give you quick service. In most cases, any of these Walter Meier Authorized Service Centers can authorize warranty repair, assist you in obtaining parts, or perform routine maintenance and major repair on your JET® tools. For the name of an Authorized Service Center in your area call 1-800-274-6848.

**MORE INFORMATION**

Walter Meier is consistently adding new products to the line. For complete, up-to-date product information, check with your local Walter Meier distributor, or visit waltermeier.com.

**WARRANTY**

JET products carry a limited warranty which varies in duration based upon the product (MW = Metalworking, WW = Woodworking).

| 90 DAY WARRANTY | 1 YEAR WARRANTY | 2 YEAR WARRANTY | 3 YEAR WARRANTY | 5 YEAR WARRANTY | LIFE LIFETIME WARRANTY |
|---|---|---|---|---|---|
| Lathe Accessories<br>Machine Accessories<br>Mobile Bases<br>Safety Equipment<br>Specialty Items<br>Vise Accessories | Air Tools-Contractor<br>Air Tools-Industrial<br>Air Tools-Light Industrial<br>Lubrication | Body Repair Kits<br>Bottle Jacks<br>Cable Pullers<br>Cold Saws<br>Hoists-Air<br>Hoists-Electric<br>Metal forming<br>Mill/Drills<br>Milling Machines<br>MW Bandsaws<br>MW Drill Presses<br>MW Finishing Equipment<br>MW Lathes<br>MW Precision Vises<br>Palet Trucks<br>Rigging Equip.<br>Service Jacks<br>Stackers<br>Surface Grinders<br>Tapping<br>Trolleys-Air<br>Trolleys-Electric<br>Web Slings<br>Winches-Electric | WW Benchtop Tools | Beam Clamps<br>Chain Hoist-Manual<br>Lever Hoists<br>Pullers-JCH Models<br>Scissor Lift Tables<br>Screw Jacks<br>Trolleys-Geared<br>Trolleys-Plain<br>Winches-Manual<br>WW Air Filtration<br>WW Bandsaws<br>WW Buffers<br>WW Drill Presses<br>WW Dust Collectors<br>WW Dust Filters<br>WW Dust Fittings<br>WW Jointers<br>WW Lathes<br>WW Planers<br>WW Sanders<br>WW Shapers<br>WW Tablesaws | Fastening Tools<br>Mechanics Hand Tools<br>Striking Tools<br>Vises (no -precision)<br>Clamps |

*Warranty reverts to 1 Year Warranty if woodworking (WW) products listed above are used for industrial or educational purposes.*

**WHAT IS COVERED?**

This warranty covers any defects in workmanship or materials subject to the exceptions stated below. Cutting tools, abrasives and other consumables are excluded from warranty coverage.

**WHO IS COVERED?**

This warranty covers only the initial purchaser of the product.

**WHAT IS THE PERIOD OF COVERAGE?**

The general JET warranty lasts for the time period specified in the product literature of each product.

**WHAT IS NOT COVERED?**

Five Year Warranties do not cover woodworking (WW) products used for commercial, industrial or educational purposes. Woodworking products with Five Year Warranties that are used for commercial, industrial or education purposes revert to a One Year Warranty. This warranty does not cover defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair or alterations, or lack of maintenance.

**HOW TO GET SERVICE**

The product or part must be returned for examination, postage prepaid, to a location designated by us. For the name of the location nearest you, please call 1-800-274-6848.

You must provide proof of initial purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will repair or replace the product, or refund the purchase price, at our option. We will return the repaired product or replacement at our expense unless it is determined by us that there is no defect, or that the defect resulted from causes not within the scope of our warranty in which case we will, at your direction, dispose of or return the product. In the event you choose to have the product returned, you will be responsible for the shipping and handling costs of the return.

**HOW STATE LAW APPLIES**

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

**LIMITATIONS ON THIS WARRANTY**

WALTER MEIER (MANUFACTURING) INC., LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG THE IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

WALTER MEIER SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Walter Meier sells through distributors only. The specifications in Walter Meier catalogs are given as general information and are not binding. Members of Walter Meier reserve the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever. JET® branded products are not sold in Canada by Walter Meier.

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# ⚠ Warnings

1. Read and understand the entire owners manual before attempting assembly or operation.
2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
3. Replace the warning labels if they become obscured or removed.
4. This drill press is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a drill press, do not use until proper training and knowledge have been obtained.
5. Do not use this drill press for other than its intended use. If used for other purposes, Walter Meier (Manufacturing) Inc., disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
6. Always wear approved safety glasses/face shields while using this drill press. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this drill press, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation.
9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
   - Lead from lead based paint.
   - Crystalline silica from bricks, cement and other masonry products.
   - Arsenic and chromium from chemically treated lumber.

   Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.
10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
12. Make certain the machine is properly grounded.
13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
16. Make sure the drill press is firmly secured to the floor or bench before use.
17. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
18. Provide for adequate space surrounding work area and non-glare, overhead lighting.
19. Keep the floor around the machine clean and free of scrap material, oil and grease.

# ⚠ Warnings

20. Keep visitors a safe distance from the work area. **Keep children away.**
21. Make your workshop child proof with padlocks, master switches or by removing starter keys.
22. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
23. Maintain a balanced stance at all times so that you do not fall or lean against the spindle or other moving parts. Do not overreach or use excessive force to perform any machine operation.
24. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
25. Use recommended accessories; improper accessories may be hazardous.
26. Maintain tools with care. Keep drill bits sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
27. Make sure the work piece is securely attached or clamped to the table. Never use your hand to hold the work piece.
28. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
29. Do not stand on the machine. Serious injury could occur if the machine tips over.
30. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
31. Remove loose items and unnecessary work pieces from the area before starting the machine.

**Familiarize yourself with the following safety notices used in this manual:**

**⚠CAUTION** This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

**⚠WARNING** This means that if precautions are not heeded, it may result in serious injury or possibly even death.

## - - SAVE THESE INSTRUCTIONS - -

# Specifications

| | |
|---|---|
| Model Number | JDP-20MF |
| Stock Number | 354170 |
| Swing | 20-1/2” |
| Type | Floor |
| Drilling Capacity | 1” |
| Chuck Size | 3/4” |
| Spindle Travel | 4-5/8” |
| Spindle Distance to Base | 46-3/4” |
| Spindle Distance to Table (max.) | 29-1/8” |
| Table Size (Length x Width) | 18-1/2" x 16" |
| Spindle Taper | MT-3 |
| Column Diameter | 3-3/8” |
| Number of Spindle Speeds | 12 |
| Range of Spindle Speeds (RPM) | 150 – 4,200 |
| Base Size | 13-3/4” x 22-3/4” |
| Overall Dimensions (H x W x D) | 66" x 18-1/2" x 31-1/2"" |
| Motor | 1-1/2HP, 115/230V, 60Hz, 1Ph, Prewired 115V |
| Net Weight (approx.) | 282 lbs. |
| Gross Weight | 293 lbs. |
| Carton Size (L x W x H): | 26" x 13" x 58" |

# Shipping Contents

Unpack the carton and verify that all parts listed below are included.

### Main Parts

| | |
|---|---|
| 1 ea | Head Assembly |
| 1 ea | Table |
| 1 set | Column and Table Bracket Assembly |
| 1 ea | Base |

### Additional Parts

| | | |
|---|---|---|
| 1. | 1 set | Chuck and Chuck Key |
| 2. | 1 pc | Arbor |
| 3. | 1 pc | Drift Key |
| 4. | 1 pc | Table Crank Handle |
| 5. | 1 pc | Column Lock Handle |
| 6. | 3 pcs | Downfeed Handles and Knobs |
| 7. | 1 pc | 5/8"-11x2" Hex Cap Screw |
| 8. | 1 set | Locator Pin and Hex Nut |
| 9. | 4 pcs | M10 x 40 Hex Cap Screws |
| 10. | 2 pc | Hex Wrenches (3mm, 5mm) |

### Other Material

| | |
|---|---|
| 1 ea | Owner's Manual |
| 1 ea | Warranty Registration Card |

# Required Tools

1. 17mm Box Wrench or a 6" – 8" Adjustable Wrench
2. 15/16" wrench




*Additional Parts*

# Assembly

**⚠WARNING Read and understand all assembly instructions before attempting assembly! Failure to comply may cause serious injury!**

**⚠WARNING Do not attempt to turn on power before this machine is completely assembled.**

## Before Assembly

1. Remove the contents from the shipping container.
2. Compare the contents of the shipping container with the list on page 7. Report any shortages or damage to your JET distributor.
3. Clean all rust protected surfaces with kerosene or a light solvent. Do not use lacquer thinner, paint thinner, or gasoline. These will damage plastic components and painted surfaces.

## Column Assembly

Referring to Figure 1:

1. Place the base (A) on a level floor.
2. Place the column assembly (B) on the base (A) and align the holes in the column support with the holes in the base.
3. Using a 17mm wrench, secure the column (B) with four M10 x 40 hex cap screws (C) to the base.

## Table Bracket

When shipped, the *rack ring* and *rack* are bundled together with the column in plastic wrap.

Referring to Figures 2 and 3:

1. Remove the wrap and take the rack ring (D) and rack (B) off the column (C).
2. Install the table bracket (A) together with the rack (B) on the column (C) as shown in Figure 2.
3. Slide the rack ring (D) over the column (C), placing it so it rests against the rack (B) as shown in Figure 3 and tighten firmly with a 3mm hex wrench (provided).

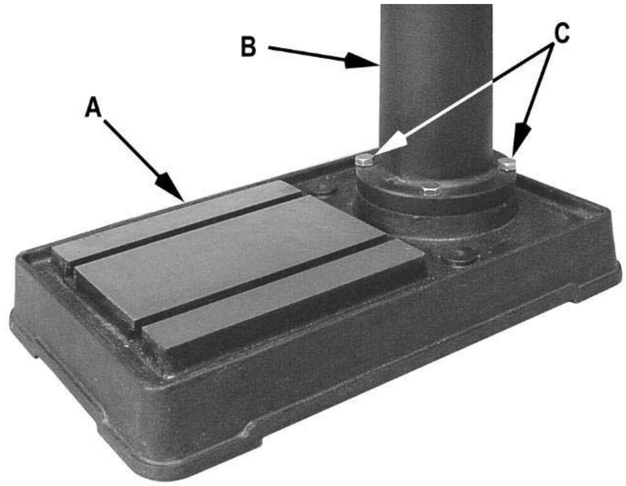



*Figure 1*

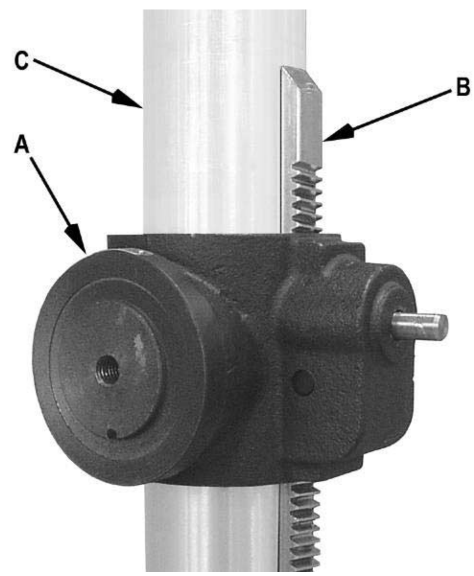



*Figure 2*

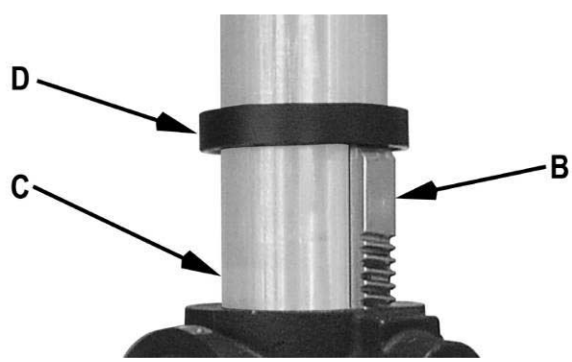



*Figure 3*

## Crank Handle

Referring to Figure 4:

1. Loosen the setscrew (B) on the table crank handle (A).
2. Slide the handle (A) onto the table bracket shaft.
3. Turn the handle until the setscrew is opposite the flat section on the shaft, and tighten the setscrew to secure the handle.

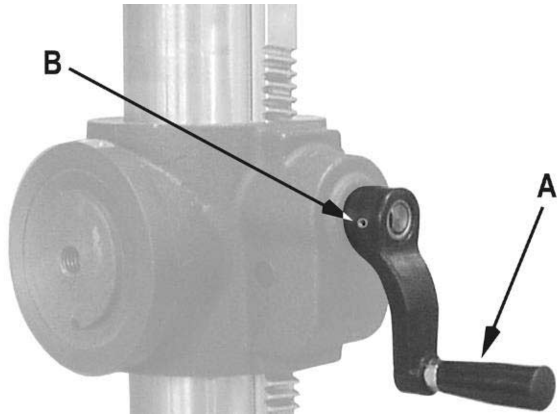


*Figure 4*

## Column Lock Handle

Referring to Figure 5:

Thread the *column lock handle* (A) into the table bracket (B).

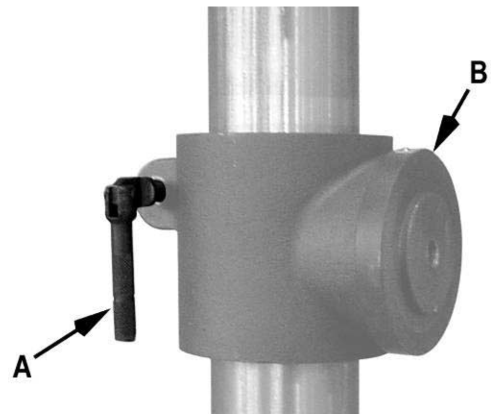


*Figure 5*

## Table Installation

**CAUTION** **The table is heavy! This installation is a two person operation to avoid injury from accidental dropping.**

Referring to Figure 6:

1. Have one person hold the table (A) against the bracket (B), aligning the hole in the mounting plate of the table with the threaded hole in bracket.
2. Have the second person insert the 5/8"-11x2 hex head screw (C) through the opening on the bottom side of the table (A) and start threading the screw into the bracket by hand.
3. Finish tightening the screw (C) with a 15/16" or wrench (wrench provided), but leave loose enough so the table can be tilted by hand.
4. Using the scale on the bracket as a guide, set the table angle to 0 degrees (level).
5. Take the locator pin (D) and adjust the hex nut towards the end of the thread as shown in the close up view (D).
6. Insert the non-threaded end of the locator pin (D) into the hole on the table found just below the mounting screw. Press all the way in.

   **Note:** The table may have to be tilted slightly back and forth if the holes do not quite align.

7. Tighten the screw (C) with a 15/16" wrench.

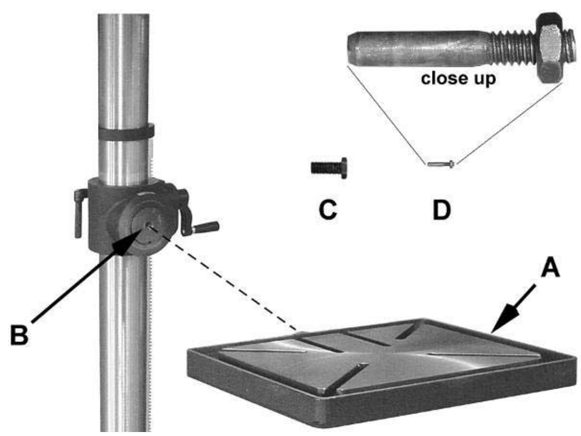


*Figure 6*

## Head Assembly

Referring to Figure 7:

1. With the aid of a second person, carefully lift the *head* onto the column top and slide it down into position

**⚠CAUTION The head assembly is heavy! Use care when lifting onto the column!**

2. Rotate head assembly until sides of the pulley cover are parallel with the sides of the base.
3. Tighten two setscrews (A) with a 5mm hex wrench (provided) until they are snug.
4. Install three *downfeed handles* (B) into the downfeed hub (C).




*Figure 7*

## Chuck and Arbor Installation

Referring to Figure 8:

1. Raise table to approximately seven inches below spindle assembly, and lock the table in place.
2. Place a piece of scrap wood (D) on the table.
3. Thoroughly clean the internal and external taper of the arbor (A), and chuck (B) and spindle (C).

**Important**: These three pieces must be free of any rust protection, or lubricant. If they are not clean, the arbor and chuck will fail to seat in the spindle.

4. Place arbor (A) into the chuck (B).
5. Twist the chuck to retract the chuck jaws if they are exposed.
6. Place arbor and chuck assembly into the spindle (C).
7. Turn the arbor and chuck assembly until the tang on the arbor engages the slot at the end of the spindle.
8. Lower the down feed handle (E) so that the chuck meets the scrap wood. Place downward pressure on the feed handle to seat the arbor and chuck into the spindle.

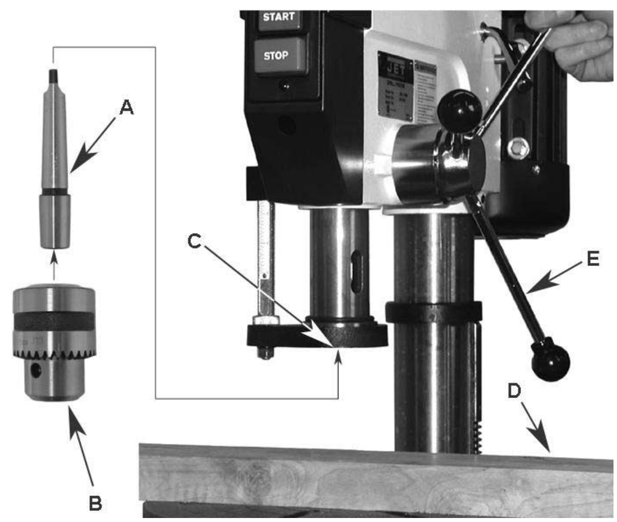



*Figure 8*

## Chuck and Arbor Removal

1. Unplug machine from the power source.
2. Raise the table until it is about seven inches below the chuck.
3. Place a piece of scrap wood on the table, and lower quill (A, Fig. 9) using the downfeed handle.
4. Rotate spindle to align the keyhole in the spindle with the keyhole in the quill.
5. Insert the drift key (B, Fig. 9) into the aligned slots and tap lightly. The chuck and arbor assembly should fall from the spindle.

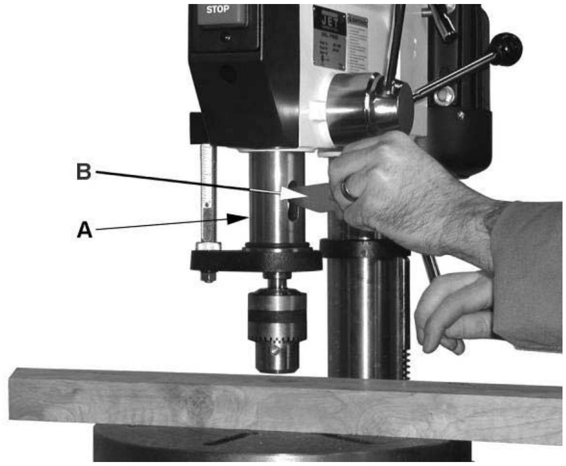



*Figure 9*

# Adjustment

## Depth Stop Adjustment

To drill multiple holes at the same preset depth, use the depth stop:

1. Use a pencil to mark the depth the bit will drill into the workpiece.
2. With the drill bit in the chuck, lower downfeed handle to advance bit to your mark (A, Fig. 10).
3. With your other hand, advance the lock nuts (B, Fig. 10) on the depth stop rod until they are snug to the seat (C, Fig. 10).
4. The drill bit will now advance to this point.
5. To release, advance the nuts counter-clockwise to the top of the depth stop.

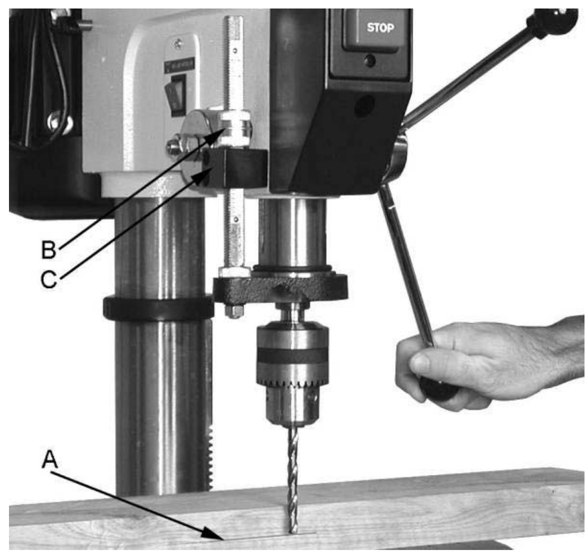



*Figure 10*

## Changing Spindle Speeds

A spindle speed and pulley/belt arrangement chart is found on the inside of the pulley cover (D, Fig. 11), also shown in Figure 12. Refer to this chart whenever changing speeds.

To change spindle speeds:

1. Unplug the machine from the power source.
2. Loosen two bar knobs (E, Fig. 11) found on each side of the head assembly.
3. Rotate the tension adjuster clockwise (F, Fig. 11) to bring the motor base as close to the head as possible.
4. For desired speed, change the location of belts per pulley/belt arrangement chart.
5. Rotate the tension adjuster counterclockwise (F. Fig. 11) to tension the belts.
6. Tighten two bar knobs (E, Fig. 11). Belts are properly tensioned when finger and thumb pressure midway between the two pulleys causes approximately ½” deflection.

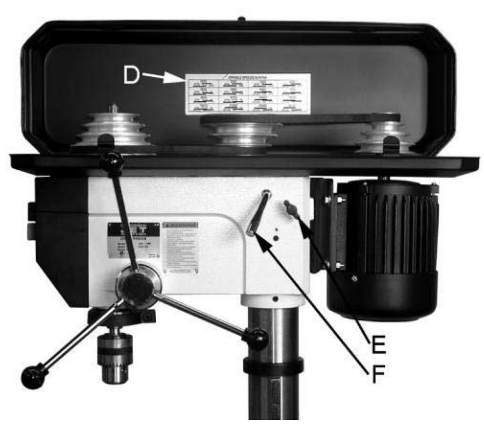



*Figure 11*

## Return Spring Adjustment

The return spring is adjusted at the factory and should not need further adjustment. If adjustment is deemed necessary, follow the steps below while referring to Figure 12:

1. Unplug the machine from the power source.
2. Loosen two hex nuts (A). *Do not remove*.

**⚠WARNING Do not remove the coil spring cover (Step 3). The torsion spring will uncoil and can cause serious injury.**

3. Firmly hold the coil spring cover (B).
4. Pull out the cover and rotate until the pin (C) on the return spring plate engages the next notch in the coil spring cover. Turn the cover clockwise to decrease tension and counter-clockwise to increase tension.
5. Tighten two hex nuts (A). Do not over-tighten. Nuts should not contact the housing when tight. The hex nuts should be tightened against each other.

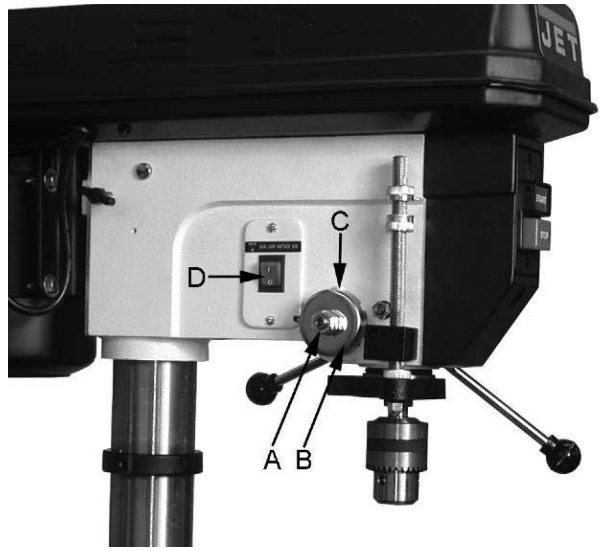



*Figure 12*

## Work Light

Install a light bulb, no larger than 60 watts into the socket accessed from beneath the head. The rocker switch controls the light switch (D, Fig. 12). **NOTE:** If using 230 volt power, use a light bulb rated accordingly.

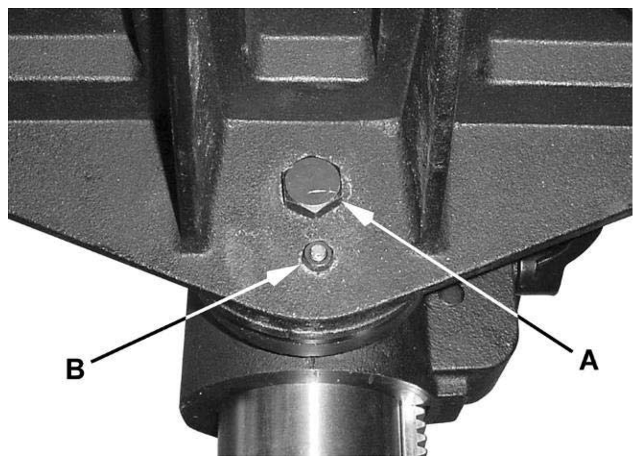



*Figure 13*

## Table Tilt Adjustment

To tilt the table (refer to Figures 13 and 14):

**⚠CAUTION In the following steps, DO NOT OVER LOOSEN. This could result in the table assembly to separate from the column, fall and cause injury.**

1. Using a 15/16" wrench, loosen the hex cap screw (B), located under the table, about one turn.
2. Pull the locator pin out. The pin may be seated quite tight; in which case turn the hex nut (B) clockwise with a 3mm hex wrench to assist in extracting the pin

   **Note:** When the table is in any position other than level (0 degrees), the locator pin is not used.

3. Tilt the table to the desired angle by aligning the scale (in degrees) on the table (C) to the marker at the base of the bracket (D).
4. Tighten the hex cap screw (A).

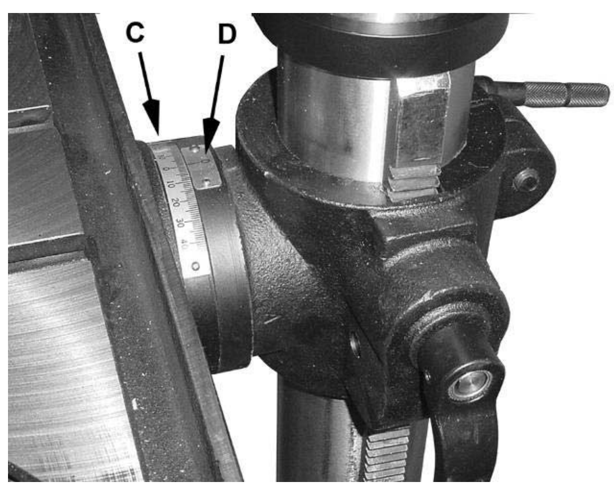



*Figure 14*

# Operation

## Installing Drills

Insert the drill into the chuck jaws with about 1" insertion. When using a small drill do not insert it so far that the jaws touch the flutes of the drill. Make sure that the drill is centered in the chuck before tightening the chuck with the key.

## Positioning the Workpiece

Always place a piece of wood (or plywood) on the table. This will prevent "splintering" or making heavy burrs on the underside of the workpiece as the drill breaks through. The wood should contact the left side of the column.

## Using the Vise

For the small workpiece that cannot be clamped to the table, use a drill press vise. The vise must be clamped or bolted to the table. Always use a back-up piece of scrap wood to cover the table. This protects both the table and the drill bit.

## Basic Operation

Place material to be drilled in such as way as to come into contact with the left side of the column. This prevents the material from spinning.

**⚠WARNING If the work piece is not large enough to come into contact with the column, use a clamp or drill press vise that is securely fastened to the table! Failure to comply may cause serious injury!**

Feed the bit into the material with only enough force to allow the drill bit to work. Feeding too slowly may cause burning of the workpiece. Feeding too quickly may cause the motor to stop and/or the drill bit to break.

Generally speaking, the smaller the drill bit, the greater the RPM required. Wood requires higher speeds than metal. Metal is usually drilled at slower speeds.

In dusty environments, frequently blow out any dust that accumulates inside the motor.

# Maintenance

**⚠WARNING Before any intervention on the machine, disconnect it from the electrical supply by pulling out the plug or switching off the main switch! Failure to comply may cause serious injury.**

A coat of automobile-type wax applied to the table and column will help to keep the surfaces clean.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

# Lubrication

All of the ball bearings are packed with grease at the factory. They require no further lubrication.

Periodically lubricate the gear, rack, table elevation mechanism, the splines (grooves) in the spindle, and the teeth of the quill with a #2 tube grease.

# Electrical

## 115 Volt Operation

Referring to Figure 15:

As received from the factory, your drill press is ready to run at 115-volt operation. This drill press, when wired for 115 volt, is intended for use on a circuit that has an outlet and a plug that looks like the one illustrated in (A). A temporary adapter, which looks like the adapter shown in (B), may be used to connect this plug to a two-pole receptacle if a properly grounded outlet is not available. The temporary adapter should only be used until a properly grounded outlet can be installed by a qualified electrician. This adapter is not applicable in Canada. The green colored rigid ear, lug, or tab, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

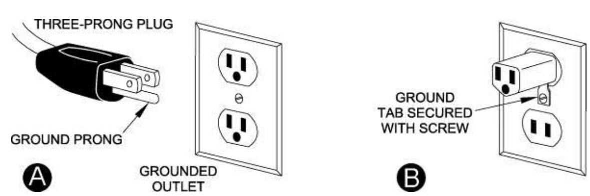



Figure 15

## 230 Volt Operation

Referring to Figure 16:

If 230V, single-phase operation is desired, the following instructions must be followed:

1. Disconnect the machine from the power source.
2. The JET drill press motor has four numbered leads that are factory connected for 115V operation, as shown in (A). For 230V operation reconnect the leads as shown in (B).
3. The 115V attachment plug (C), supplied with the drill press, must be replaced with a UL/CSA listed plug suitable for 230V operation (D). Contact your local Authorized JET Service Center or qualified electrician for proper procedures to install the plug. The drill press must comply with all local and national codes after the 230-volt plug is installed.
4. The drill press with a 230-volt plug should only be connected to an outlet having the same configuration as shown in (D). No adapter is available nor should be used with the 230-volt plug.
5. The light bulb must be replaced with a bulb rated for 230 volt operation.

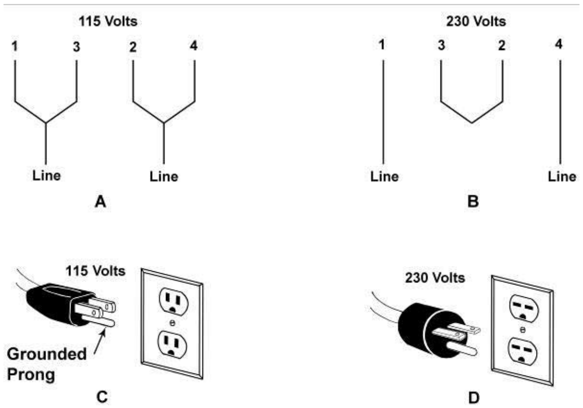



*Figure 16*

## Grounding Instructions

**⚠CAUTION This tool must be grounded while in use to protect the operator from electric shock.**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.

Repair or replace a damaged or worn cord immediately.

## Extension Cords

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your machine will draw. An undersized cord will cause a drop in the line voltage resulting in power loss and overheating. The table following shows the correct size to use depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. Remember, the smaller the gauge number, the heavier the cord.

| Length of Cord | AWG |
|---|---|
| 0–25 | 16 |
| 25-50 | 14 |
| 51-100 | 12 |

The drill press with a 230-volt plug should only be connected to an outlet having the same configuration (D, Fig. 16). No adapter is available or should be used with the 230-volt plug.

Important: In all cases (115 or 230 volts), make certain the receptacle in question is properly grounded. If you are not sure, have a registered electrician check the receptacle.

## Troubleshooting

| Trouble | Probable Cause | Remedy |
|---|---|---|
| Drill press will not start. | Drill press unplugged from wall, or motor. | Check all plug connections. |
| | Fuse blown, or circuit breaker tripped. | Replace fuse, or reset circuit breaker. |
| | Cord damaged. | Replace cord. |
| | Starting capacitor bad. | Replace starting capacitor. |
| Drill press does not come up to speed. | Extension cord too light or too long. | Replace with adequate size and length cord. |
| | Low current. | Contact a qualified electrician. |
| Drill Press vibrates excessively. | Stand on uneven surface. | Adjust stand so that it rests evenly on the floor. |
| | Bad belt(s). | Replace belts. |
| Noisy Operation. | Incorrect belt tension. | Adjust belt tension. See the *Changing Spindle Speeds* section. |
| | Dry spindle. | Lubricate spindle. See the *Lubrication* section. |
| | Loose spindle pulley. | Check tightness of retaining nut on pulley, and tighten if necessary. |
| | Loose motor pulley. | Tighten setscrews in pulleys. |
| Workpiece Burns. | Incorrect Speed. | Change to appropriate speed; see the *Changing Spindle Speeds* section. |
| | Chips not clearing from hole or bit. | Retract drill bit frequently to remove chips. |
| | Dull drill bit. | Resharpen, or replace drill bit. |
| | Feeding too slowly. | Increase feed rate. |
| Drill bit wanders. | Bit sharpened incorrectly. | Resharpen bit correctly. |
| | Bent drill bit. | Replace drill bit. |
| | Bit, or chuck not installed properly. | Reinstall the chuck, or bit properly. |
| Wood splinters on the underside. | No backing board used. | Place a scrap board underneath the workpiece to prevent splintering. |
| Drill bit binds in workpiece. | Workpiece pinching the bit. | Support or clamp workpiece. |
| | Excessive feed rate. | Decrease feed rate. |
| | Chuck jaws not tight. | Tighten chuck jaws. |
| | Improper belt tension. | Adjust belt tension. See the *Changing Spindle Speeds* section. |

# Troubleshooting (cont.)

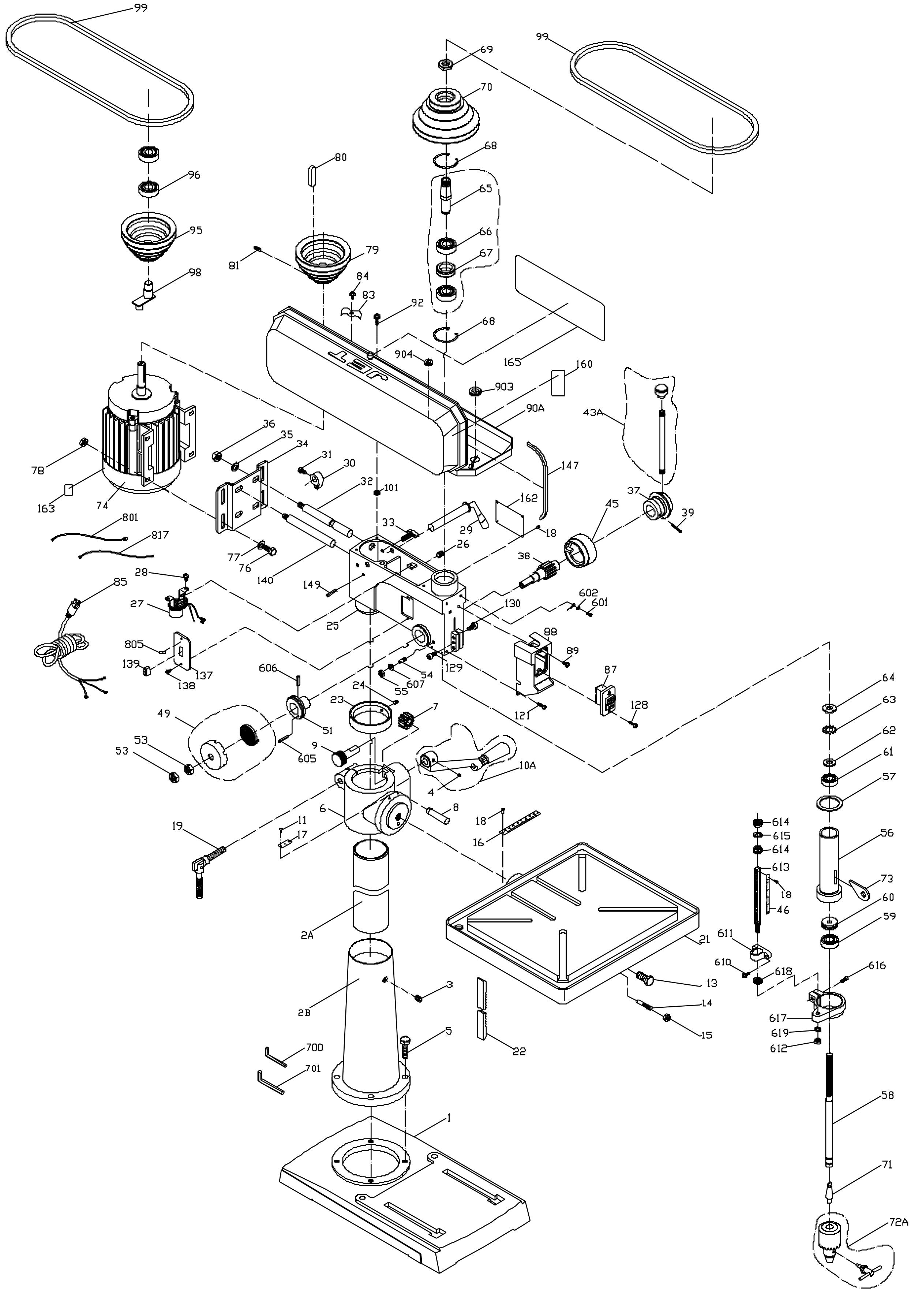
| Trouble | Probable Cause | Remedy |
|---|---|---|
| Excessive drill bit runout, or wobble. | Bent drill bit. | Replace drill bit. |
| | Worn spindle bearings. | Replace spindle bearings. |
| | Bit, or chuck not properly installed. | Reinstall the bit, or chuck properly. |
| Quill returns too slow, or too fast. | Spring has improper tension. | Adjust spring tension. See the *Return Spring Adjustment* section. |
| Chuck or arbor does not stay in place. | Dirt, grease, etc on arbor, chuck, or spindle. | Clean all mating surfaces thoroughly with a cleaner degreaser. |

# Parts

## Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848, Monday through Friday (see our website for business hours, www.waltermeier.com). Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

# Exploded View Drawing JDP-20MF



## Parts List JDP-20MF

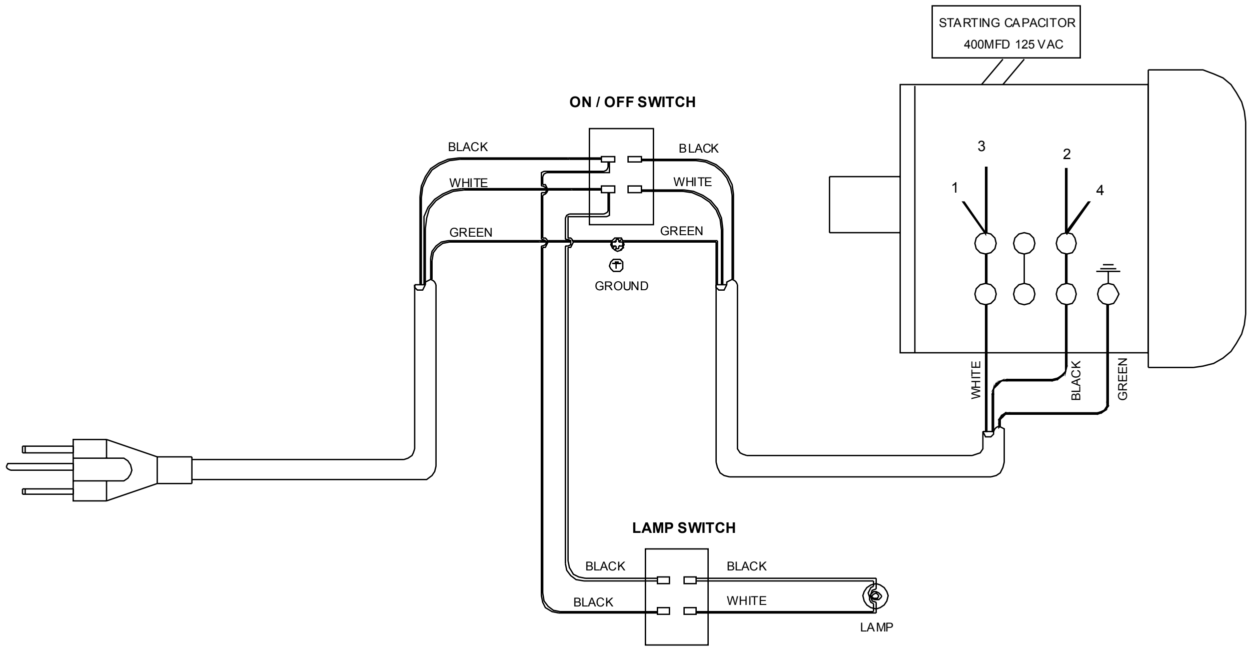
| Index No. | Part No. | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 11300117 | Base JDP-20MF | | 1 |
| | 11400401A1 | Column & Holder Assembly (Index 2A, 2B) | Ø85mm | 1 |
| 2A | JDP20-102A | Column | | 1 |
| 2B | JDP20-102B | Holder | | 1 |
| 3 | TS-1525021 | Socket Set Screw | M10x12 | 1 |
| 4 | TS-1523041 | Socket Set Screw | M6x12 | 1 |
| 5 | TS-1492041 | Hex Cap Screw | M12x40 | 4 |
| 6 | 11400607 | Bracket | | 1 |
| 7 | 10600702 | Pinion Gear | | 1 |
| 8 | 10600802 | Gear Shaft | | 1 |
| 9 | 10600902 | Worm Pinion | | |
| 10A | 11501003 | Crank Handle | | 1 |
| 11 | JDP20-111 | Pan Head Screw | M5x6 | 2 |
| 13 | TS-0071031 | Hex Cap Screw | 5/8”-11x2” | 1 |
| 14 | 10901402 | Locator Pin | | 1 |
| 15 | TS-0561011 | Hex Nut | 1/4”-20 | 1 |
| 16 | 11401601 | Angle Scale | | 1 |
| 17 | 10601702 | Centering Scale | | 1 |
| 18 | 2658MZDU36 | Drive Screw | Ø2.3x5 mm | 8 |
| 19 | 10601901 | Column Lock Handle | | 1 |
| 21 | 11302119 | Work Table | | 1 |
| 22 | 11402207 | Rack | | 1 |
| 23 | 11402311 | Rack Ring | | 1 |
| 24 | TS-2276081 | Socket Set Screw | M6x8 | 1 |
| 25 | 11302522 | Head | | 1 |
| 26 | TS-1525021 | Socket Set Screw | M10x12 | 2 |
| 27 | 10602701 | Lamp Socket | | 1 |
| 28 | TS-1534042 | Pan Head Screw | M6x12 | 2 |
| 29 | 11502901 | Handle Shifter | | 1 |
| 30 | 10603002 | Cam | | 1 |
| 31 | TS-1490021 | Hex Cap Screw | M8x16 | 1 |
| 32 | 11503212 | Slide Bar (right) | | 1 |
| 33 | 10903302 | Slide Bar Bolt | M10x40 | 2 |
| 34 | 11403437 | Motor Base | | 1 |
| 35 | TS-0720111 | Lock Washer | 1/2” | 2 |
| 36 | TS-1540081 | Hex Nut | M12 | 2 |
| 37 | 10603704 | Hub | | 1 |
| 38 | 11303812 | Feed Shaft | | 1 |
| 39 | 2536MBE611 | Spring Pin | Ø5x16 mm | 1 |
| 43A | 10604303A1 | Handle Bar Assy | | 3 |
| 45 | 10604505 | Shaft Collar | | 1 |
| 46 | 13105102 | Scale | | 1 |
| 49 | 11404903A2 | Coil Spring & Cover | | 1 |
| 51 | 11305107 | Spring Seat | | 1 |
| 53 | TS-0561052 | Hex Nut | 1/2”-20 UNF | 12 |
| 54 | 10605403 | Quill Set Screw | | 1 |
| 55 | TS-1540071 | Hex Nut | M10 | 1 |
| 56 | 11305616 | Quill | | 1 |
| 57 | 11405704 | Rubber Washer | | 1 |
| 58 | 11305801 | Spindle | | 1 |
| 59 | BB-6206ZZ | Ball Bearing | 6206ZZ | 1 |
| 60 | 2003A02906 | Thrust Bearing | | 1 |
| 61 | BB-6204Z | Ball Bearing | 6204Z | 1 |
| 62 | 11406202 | Washer | | 1 |
| 63 | 11406302 | Lock Nut | | 1 |

| Index No. | Part No. | Description | Size | Qty |
|---|---|---|---|---|
| 64 | 11406403 | Spindle Nut | | 1 |
| 65 | 11406508 | Drive Sleeve | | 1 |
| 66 | BB-6206Z | Ball Bearing | 6206Z | 2 |
| 67 | 11406706 | Collar | | 1 |
| 68 | 11406803 | Retaining Ring | | 2 |
| 69 | 10606902 | Pulley Set Nut | | 1 |
| 70 | 11407019 | Spindle Pulley | 12S,A. | 1 |
| 71 | 21015M3J40 | Arbor | MT3xJT4 | 1 |
| 72A | 561709 | Chuck & Chuck Key | | 1 |
| 73 | 10607303 | Wedge | | 1 |
| 74 | 8211422651 | Motor | | 1 |
| 75 | C0014170122 | Motor Cable | | 1 |
| 76 | TS-1490041 | Hex Cap Screw | M8x25 | 4 |
| 77 | TS-1550061 | Flat Washer | M8 | 4 |
| 78 | TS-1540061 | Hex Nut | M8 | 4 |
| 79 | 11037972 | Motor Pulley | 19mm | 1 |
| 80 | 2571MNC109 | Key | 5x6x27 mm | 1 |
| 81 | TS-1524031 | Socket Set Screw | M8x12 | 1 |
| 83 | 10608301 | Wire Clip | | 1 |
| 84 | TS-1533032 | Pan Head Screw | M5x10 | 1 |
| 85 | 2807AB08B3 | Power Cord | | 1 |
| 87 | 2850AG5A14 | Switch | | 1 |
| 88 | 11308801 | Switch Box | | 1 |
| 89 | TS-1534042 | Pan Head Screw | M6x12 | 2 |
| 90A | 11309014A1 | Pulley Cover Assembly | | 1 |
| 92 | TS-1534052 | Pan Head Screw | M6x16 | 4 |
| 95 | 11409511 | Center Pulley Assy | | 1 |
| 96 | BB-6202Z | Ball Bearing | 6202Z | 2 |
| 98 | 11409803 | Center Pulley Shaft | | 1 |
| 99 | VB-A32 | Belt | A-32 | 2 |
| 101 | 2501MNVN11 | Rubber Washer | | 4 |
| 121 | TS-2286302 | Pan Head Screw | M6x30 | 2 |
| 128 | 2653MBDE15 | Tapping Screw | M4x20 | 2 |
| 129 | TS-1504051 | Socket Head Cap Screw | M8x25 | 1 |
| 130 | TS-1504061 | Socket Head Cap Screw | M8x30 | 2 |
| 137 | 10308846 | Switch Cover | | 1 |
| 138 | TS-1533042 | Pan Head Screw | M5x12 | 2 |
| 139 | 2852U55702 | Bulb Switch | | 1 |
| 140 | 11514001 | Motor Bar (left) | | 1 |
| 147 | JDP20-1147 | Cover Edge Strip | | 1 |
| 149 | 2536MBE619 | Spring Pin | Ø8x25 mm | 2 |
| 160 | 11316902 | Nameplate | | 1 |
| 162 | 10216210 | Warning Label | | 1 |
| 163 | JDP20-1163 | Motor Label | | 1 |
| 165 | 11316501 | Speed Chart | | 1 |
| 601 | TS-1533032 | Pan Head Screw | M5x10 | 2 |
| 602 | TS-0733041 | Lock Washer External Tooth | 1/4" | 2 |
| 605 | 2536MBE623 | Spring Pin | Ø6x16 mm | 1 |
| 606 | 2536MBE625 | Spring Pin | Ø2.5x10 mm | 1 |
| 607 | TS-0720091 | Lock Washer | 3/8” | 2 |
| 610 | TS-2286202 | Pan Head Screw | M6x20 | 2 |
| 611 | 11361101 | Seat | | 1 |
| 612 | TS-1540071 | Hex Nut | M10 | 1 |
| 613 | 11361301 | Scale Bolt | | 1 |
| 614 | 13005701 | Nut | M16-2.0P | 2 |
| 615 | 13005601 | Washer | | 1 |
| 616 | TS-1504051 | Socket Head Cap Screw | M8x25 | 1 |
| 617 | 11361701 | Set Ring | | 1 |

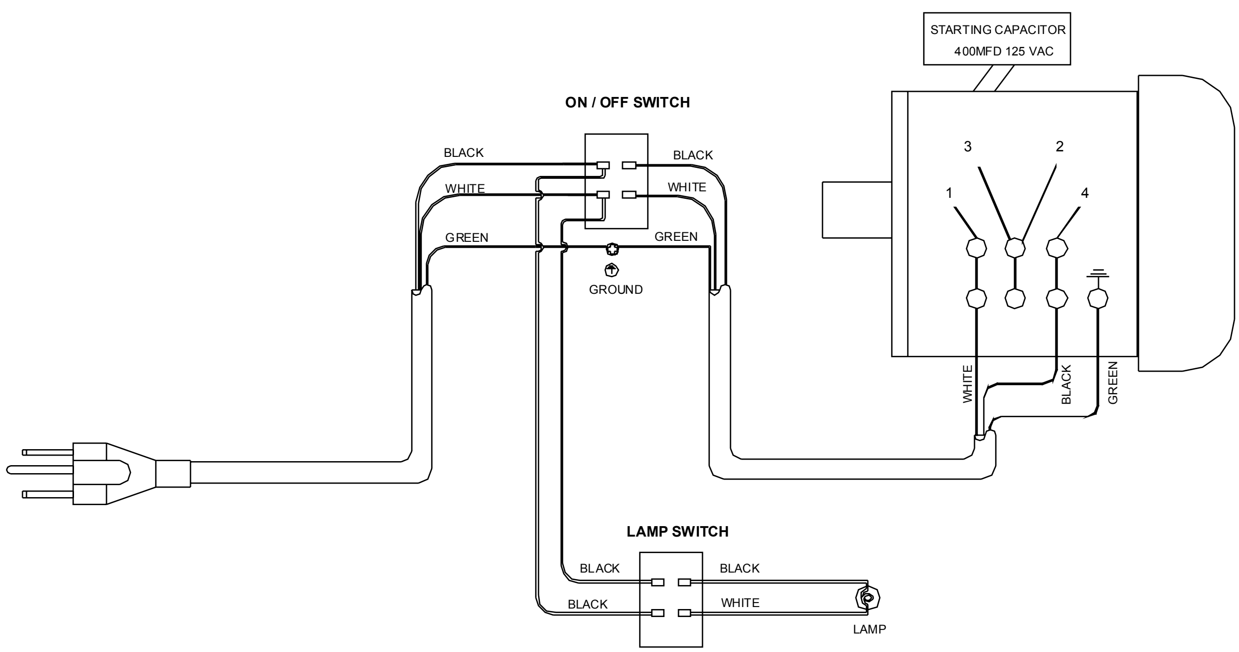
| Index No. | Part No. | Description | Size | Qty |
|---|---|---|---|---|
| 618 | 10604505 | Round Nut | | 1 |
| 619 | TS-0720091 | Lock Washer | 3/8” | 1 |
| 700 | TS-152704 | Hex Wrench | 3 mm | 1 |
| 701 | TS-152706 | Hex Wrench | 5 mm | 1 |
| 801 | 28065558B3 | Bulb Wire | | 1 |
| 805 | 10280501 | Bulb Sticker | | 1 |
| 903 | 2801ABRF04 | Strain Relief | | 2 |
| 817 | 28065558B3 | Bulb Wire | | 1 |
| 904 | JDP20-1904 | Strain Relief | | 1 |

# Wiring Diagram

## JDP-20MF Electrical Schematic – 115V




## JDP-20MF Electrical Schematic – 230V



# NOTES

# NOTES

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